





ON  
ALCOHOLISM IN GYNÆCOLOGY AND  
OBSTETRICS.

BY  
J. MATTHEWS DUNCAN, M.D.



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# ON ALCOHOLISM IN GYNÆCOLOGY AND OBSTETRICS.

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IN this paper my object is to state roundly what I know or believe in this subject, all being the result of combined observation and reading. The literature of alcoholism is pretty copious, ranging over a long period of time, and the gynæcological and obstetrical relations of it are by no means neglected. But as in the subject generally, so in the special relations of it there is great need of further investigation and increased exactness of reasoning. And, unfortunately, it cannot be alleged that there is any deficiency of materials for the student. Yet the present paper does not ambitiously propose, even in part, to make good what is wanting. It merely aims at adding some new observations to the general stock, and at concentrating the gynæcological and obstetrical details of this grand disease.

Not a word is necessary to show the importance of the subject, for this poison and some of its results are well known in the science, and cases are most grievously frequent in all departments of practice in all classes of the community. "If (says Linnæus) I were to enumerate all the diseases which owe their origin to spirituous drink, there would be no end of my discourse."

I have had little experience in peripheral alcoholic neuritis, sometimes producing a kind of paraplegia. Duckworth<sup>1</sup> says it is more common in women than in men.

The weakening influence of chronic alcoholism upon the sexual desire and sexual potency of men has been noticed by several authors, among whom I may mention Huss<sup>2</sup> and Lancereaux, who describe it as coming on (in women as well as in men) when symptoms of muscular weakness and of diminished sensibility of the extremities appear; and these words, probably, are a foreshadowing of the only recently known peripheral neuritis above referred to. Lippich is quoted by Huss as having shown, by the numerical method, that the marriage of a soaker produces on an average 1·3 children, while that of a non-soaker produces 4·10; so that soaking suppresses two-thirds of the children which would

<sup>1</sup> *St Bartholomew's Hospital Reports*, vol. xxii. p. 253, 1886.

<sup>2</sup> *Chronische Alkoholskrankheit*, Stockholm und Leipzig, 1852, p. 331.

on an average be produced in a marriage. Roesch<sup>1</sup> confirms the view of Lippich, and describes the testicles of soakers as sometimes atrophic, and the penis and scrotum relaxed. He has observed the testicles reduced to the size of a haricot or a pea, and drawn up to the inguinal ring. Lancereaux<sup>2</sup> has found morbid modifications of the epithelium of the canaliculi, and the vesiculæ seminales having in their unhealthy fluid contents few spermatozoa and the sympexions of Robin, as in old men—a premature senility.

The influence of chronic alcoholism on the structure of the ovaries has attracted even less attention than the little devoted to that on the testicles. This has arisen, no doubt, partly from the paramount characters of the changes induced in the liver, partly from the more hidden seat of the ovaries, partly from neglect of their condition in autopsies of drunken women, and partly from the quite recent introduction of the bimanual method in the very modern development of gynæcology. No doubt, every organ and tissue of the body is modified in structure by chronic alcoholism, and attention has been too exclusively directed to changes in the liver. This is easily explained by the accessibility of the organ to examination, the grossness of the changes produced, and most of all by the easily traced injurious effect of such changes on the general health and on the continuance of life.

It is generally admitted that portal congestion, whether from obstruction by cirrhosis or not, is a cause of menorrhagia in drunkards; and it may be fairly said that this is or was recently the only special morbid result of chronic alcoholism in women generally known to physicians. Now, attention is directed to close physical examination of the genital organs themselves, and specially of the ovaries, with a view to elucidating the subject of this paper; and I may here state my strong assurance that the ovaries are as liable to functional disorder as the liver, and much more readily and frequently changed, in conditions easily appreciated by the practitioner, than is that organ.

Though the influence of disease of the ovaries is not so potent or important as that of the liver on the health of the individual, it has to be recognised as very important in that respect, and as having, quite beyond that of the liver, grand bearings on population, in respect both of its number and of its quality. What is the comparative potency of alcoholic disease of the testicles and of the ovaries on population we have at present no definite means of even guessing, but it may be safely judged that that of the ovaries is paramount on account of the much greater part taken in reproduction by the female than by the male. Bruhl-Cramer is said by Roesch to assert that the influence of the father's drunkenness on the production of idiot children is greater than that of the

<sup>1</sup> *Annales d'hygiène publique et de médecine légale*, tome xx., 1838, p. 84.

<sup>2</sup> *Dict. Encyclop. des sciences médicales*, tome ii. p. 667.



mother, but no ground is given for the assertion, nor is it made clear whether the alleged prepotency of this male influence is the result merely of a numerical preponderance of male drunkards, or of the special prepotency in this respect of the male over the female element in conception.

The universally known causal relation of chronic alcoholism to renal disease needs no remark, further than that it is by many pathologists held to be less in women than in men, in accordance with an assumed but surely very imperfectly demonstrated law that the female sex is less liable to be injuriously affected by chronic alcoholism than the other.

In women, alcoholic inflammatory trouble in the pelvis, of the kidneys, ureters, bladder, and urethra are not very rare, and I have an impression that they are more frequent in women than in men. They may be sometimes missed in making a full or complete diagnosis, as they may take only a share in the constitutional disturbance produced by them in association with other diseases; and as they are, at least sometimes, marked by an urgency of local symptoms less than is observed in cases of equal local severity produced by other causes.

Fournier<sup>1</sup> says that certain spasms of the neck of the bladder and catarrh of the organ have been specially signalized as consequences of alcoholism, and he quotes Civiale as describing some vesical catarrhs, though fewer than might be expected, resulting from abuse of spirituous liquors. Civiale had seen only three well-characterized cases in which inebriety appeared to be the principal if not the only cause. Lancereaux<sup>2</sup> describes vesical catarrh as common among drunkards, and he has several times found the bladder enlarged, dilated, the mucous membrane thickened, red or grayish, dotted with black points caused by pigment deposited around hypertrophied glands; and he adds that a similar alteration is sometimes found in the ureters and in the pelves of the kidneys. Lecturing<sup>3</sup> on vaginitis, I mention the not very rare occurrence in drunken women of subacute inflammation of the kidneys, bladder, urethra, and vagina, and add regarding two cases, one in advanced pregnancy, another in a woman above sixty, that "both had purulent vaginal discharge, both had urethritis, which in the old woman was so severe that you could bring out pus from the orifice of the urethra. Both had irritable bladder and albuminous urine, this secretion being in the old woman sometimes tinged by blood. In both the vaginitis was an unimportant part of the disease compared with the affection of the urinary organs; and this latter justly attracted almost the whole attention of the practitioner. In such cases," I add, "the urine is of low specific gravity, opalescent, and remaining opalescent after standing; it deposits mucus, with

<sup>1</sup> *Nouveau dict. de méd. et de chir. prat.*, tome i. p. 664.

<sup>2</sup> *Dict. Encycl. des sciences médicales*, tome ii. p. 667.

<sup>3</sup> *Clinical Lectures on the Diseases of Women*, 3rd edit., p. 165.

phosphates and lithates. The microscope detects pus, bladder epithelium, and epithelium of the ureters. Albumen is thrown down on boiling."

Many writers have described menstrual disorder of all kinds as arising from chronic alcoholism apart from portal congestion; and Lancereaux particularly mentions premature cessation of menstruation, seemingly connecting this with the observation in several cases of smallness of size of the ovaries, and principally of the cortical or glandular parts of them. Such statements, though having a small value, are lamentably vague, and I have only similar statements to add to the discussion of the subject, but they are made from large experience and confirmed by clinical bimanual examination.

The injurious effect on the ovaries is frequently observed in women who are plump or fat, and have no great disorder of general health; and, for the evil result, it is not necessary that the women be, in the ordinary sense, intemperate, but only using spirituous drinks largely, soakers in a moderate degree.

While every variety of menstrual disorder may certainly occur, my experience indicates menorrhagia as by far the most frequent.<sup>1</sup> The menorrhagia is a loss prolonged rather than excessive within the limits of an hour or a day. It may possibly be dependent on a degree of endometritis corporis, but I know no means of proving this in the present state of gynaecology. Such endometritis may be part of, or an accompaniment of disease of the ovaries, which is quite easily detected. The ovaries are usually to be both felt, generally enlarged, tender, smooth surfaced, and having circumambient diffused swelling and imperfect fixation, sometimes to such a degree as to suggest the presence of adhesions. That all this is a true view of such cases is copiously attested by the complete recovery of healthy conditions in cases not already of too great duration, when alcoholic drinks are totally abstained from; and, not rarely, such recovery is further attested by supervention of pregnancy, this condition of the ovaries frequently preventing or arresting fertility, though it does not invariably do so even when well marked and distinctly affecting both glands. That this chronic ovaritis, as it may be justly termed, may terminate, as has been suggested, in cirrhotic atrophy, I have no reason to doubt, neither have I any ground for asserting it.

As a contribution to this matter I quote from the *Transactions of the Pathological Society of London*<sup>2</sup> a communication by Dr Norman Moore, with relative report.

"The ovaries (says Dr Moore, describing a specimen) are large, dense, and smooth on the surface. The microscopic sections show great thickening of the tunica albuginea and of the perivascular

<sup>1</sup> See the author's *Clinical Lectures on Diseases of Women*, 3rd edit., p. 212, and *Sterility in Women*, p. 126.

<sup>2</sup> Vol. xxxv. p. 248.



connective tissue. This change is especially distinct in the zona vasculosa. Numerous Graafian follicles, small and large, are visible, but all have a more or less shrunken appearance.

"The liver shows great increase of fibrous tissue, with extensive atrophy of the liver cells. The organs were those of a married woman, aged 41, who died in St Bartholomew's Hospital, under the care of Dr Church, of cirrhosis of the liver, with ascites. The kidneys were not diseased.

"Dr Matthews Duncan has suggested that interstitial change in the ovaries is a cause of sterility in intemperate women, and Mr Lawson Tait speaks (*Diseases of Ovaries*) of cirrhosis of the ovaries, but very little is to be found in authors as to the nature or frequency of the condition.

"The ovaries were referred to the Morbid Growths Committee for report.

" *March 4th, 1884.*

*"Report of the Morbid Growths Committee on Dr Norman Moore's specimen of Enlarged Ovaries in connexion with Cirrhosis of the Liver.*

"The ovaries submitted to us are larger than natural, but their texture having been altered by preservation in spirit, we are unable to speak definitely of the appearances they originally presented to the naked eye.

"We have examined the microscopic specimens, and find that they show a general increase in all the constituents of the ovary. The cortex is much denser than normal, and the density is due to an increase of fibrous tissue, which is closely arranged, and contains but few nuclei. The greater part of the rest of the ovaries is composed of cells, similar in shape and size to the nuclei of involuntary muscle fibre. These are imbedded in a homogeneous matrix. The vessels are notably abundant; many of them have very delicate walls. Corpora lutea in the later stages of development are present.

"We do not find any of the small round connective tissue cells met with in cirrhosis (as, for example, in the liver in the present case), nor any other evidences of a chronic inflammatory process.

"We are therefore disposed, from these appearances, to think that the enlargement of the ovaries in this case is more of the nature of an hypertrophy than of a chronic inflammation or cirrhosis.

CHARTERS J. SYMONDS.  
ANTHONY A. BOWLBY."

*"April 24th, 1884."*

After operations women who are in a condition of chronic alcoholism are, like men, liable to nervous delirium of varying degrees of severity, and to well-characterized delirium tremens. On this affection I shall enter more fully when I treat of it as

complicating the puerperal state. Dupuytren,<sup>1</sup> recognising the analogy with delirium tremens of what he calls the nervous delirium of the operated on, says that women are less liable to it than men, and on this point I express no opinion. I have seen it, in various degrees, after uterine operations, and lately well-marked delirium tremens occurred in an elderly patient after the use of Paquelin's cautery, in destroying a small growth on the cervix of a uterus which was enlarged to the size of a cocoanut, apparently by a fibroid in it. The delirium began on the second day, was severe for two days, and did not quite disappear till after a week had elapsed since the operation.

While, in my own experience, I have not made observations of injurious influence of chronic alcoholism on women in pregnancy and parturition, apart from the tendency to miscarriage or premature labour, it is yet probable that such bad influence is exerted, and I quote the testimony to this effect of Dr Kirk.<sup>2</sup> "For my own part," says he, "I am convinced that indulgence in alcohol beyond the most moderate extent is frequently in the last degree disastrous to a pregnant woman and her progeny." "I have now," he adds, "seen cases of fatal rupture, fatal inversion of the uterus, and fatal post-partum hæmorrhage in habitually drunken women. I believe there is a marked tendency to hæmorrhage, more especially in such subjects." Before Kirk, Joseph Frank<sup>3</sup> described bad consequences as occurring in lying-in women.

In the puerperal state of women in a condition of chronic alcoholism, the occurrence of the nervous delirium of Dupuytren is far from rare, and of it I have seen several examples; the occurrence of delirium tremens is extremely uncommon, and of it I know only one case which occurred recently in my own practice. It seems to me that this statement, as to a unique case, probably gives an exaggerated idea of the rarity of the disease; yet that it must be very rare I cannot doubt, seeing that I have had more than forty years of large experience in midwifery, and that, during all that time, I have had considerable familiarity with obstetric literature.

It is scarcely necessary here to say that the injurious influence under discussion is that of chronic, not of mere acute alcoholism; that produced by habitual drunkenness, or slight but long-continued soaking, not that produced by a single or an occasionally repeated debauch.

Delirium tremens is a well-known disease, with its sweatings, its overpowering terrors, and their accompanying violence: it needs no description. The nervous delirium of the operated on, and of

<sup>1</sup> *Leçons orales de Clinique Chirurgicale*, tome ii. p. 234, "Il ne sera pas sans intérêt de parler ici du delirium tremens qui offre une grande analogie avec le délire nerveux."

<sup>2</sup> *Glasgow Medical Journal*, Dec. 1885, p. 409.

<sup>3</sup> See *Huss. Chronische Alkoholskrankheit*, 1852, p. 331.

lying-in women, is a disease much less striking in its characters, yet it is scarcely liable to be confused with the delirium symptomatic of fever. Not only has it characters less striking than those of delirium tremens, but it is also much more the subject of variations of degree. It may be so slight as scarcely to attract notice, or it may be severe and alarming; yet it appears to me to be, perhaps always, distinct from the regular delirium tremens.

It is very difficult to picture the condition of patients in this nervous delirium of chronic alcoholism in a few sentences, and the words of Dupuytren<sup>1</sup> and of Fournier may be well adopted with this object. The former speaks of its first period as characterized by agitation, anxiety, insomnia, loss of appetite, nausea, vomiting, hallucinations of hearing, sight, and touch, rarely much thirst, little fever, and tremblings only occasionally. Fournier<sup>2</sup> giving a fuller statement fails, as he himself admits, to keep quite true to the distinction from delirium tremens. "As to the nervous delirium of the operated on, described by Dupuytren, it approaches," he says, "to delirium tremens by so many of its characters that it seems to deserve being confounded with it. But there are more delicate cases where the delirium tremens runs the risk of being mistaken. When it complicates an acute affection, it is often difficult to differentiate it from febrile or symptomatic delirium. A minute study of the phenomena is then indispensable, and even this is not always sufficient entirely to remove doubt. In general, symptomatic delirium does not present the violence, nor the agitation, nor the need of movement, nor the interminable loquacity of the delirium ebriosum; and, further, it has not the unquiet and perplexed character; it is less subjected to sensorial troubles, and hallucinations especially take less part in it; it does not present the same bizarre mixture of just ideas and of wanderings; it does not admit in the same degree of giving place to a momentary return of the reason under the influence of a diversion somewhat active; finally, it is much more rarely complicated with trembling and persistent insomnia."

It will be observed that Fournier speaks of nervous delirium complicating an acute affection. That this may occur there can be no doubt, but what I wish here to remark is, that in all the well-marked cases that have come under my observation there has been a slight degree of an acute affection, which I would as readily describe as complicating the nervous delirium. This has been observed even in the slightest cases, and it was so in the case of delirium tremens. The affection is briefly described as a parametric swelling and induration, with tenderness, not becoming extensive or persisting, or causing much alarm.

It is certain that delirium tremens is very much rarer actually

<sup>1</sup> *Leçons orales*, tome ii. p. 234.

<sup>2</sup> *Nouveau dict. de médecine et de chirurgie pratique*, tome i. p. 653.



in women than in men; and this comparative rarity is so great as to justify the belief that women are less liable to it than men. In other words, this comparative rarity justifies the belief that the same amount of inebriety in women and in men will have as a consequence far fewer cases of delirium tremens in the female than in the male sex. But fuller demonstration of this belief is desiderated.

The disease is not restricted, as a complication, to the recently operated on: it occurs in medical cases, as of pneumonia, as well as in surgical cases. Lancereaux,<sup>1</sup> believing the nervous delirium of Dupuytren, Albers de Breme, and Lind, to be delirium tremens, cites Grisolle, Rayer, Briquet, Schmidt, and Chansing, as describing its occurrence in medical cases, and as supervening on the seventh or eighth day, not at the beginning of the disease, or during convalescence. He adds that, of 636 cases in the Duchy of Nassau recorded by J. B. V. Frank, 117 occurred in the course of various diseases and injuries. In pneumonia, 50; in compound fractures, 11; in pleurisy, 7, etc.

The puerperal state may be described as partaking of characters both medical and surgical. The following case began, as in medical cases, on the seventh day.

Mrs R., 31 years of age, 11 years married, has had six children and three miscarriages, was attended by Dr Mack at the birth of her seventh child, in which there was nothing unnatural. On the second day after delivery, symptoms which suggested an attack of typhoid fever made their appearance; copious peasoup stools; pulse about 120; temperature from 103° to 104°·5; manner excited and otherwise unnatural. [There did not at any time appear the eruption of typhoid.] On the fourth day of her confinement I could find no distinct local disorder to account for her peculiar condition. There was little milk in the breasts. There was some tenderness on deep pressure in both iliac fossæ; and, per vaginam, some fulness was suspected on each side of the uterus. These slight conditions remained, little modified, till the patient was convalescent, in the course of the third week after the birth of the child. The womb was slow in its progress of involution.

On the sixth day there were traces of delusions, but no other notable addition to former symptoms. At this time alcoholism was provisionally diagnosed, but inquiry obtained only asseverations of strictest temperance. Yet the nurse said her patient frequently asked for brandy. On the seventh day it was accidentally discovered that she had daily been having frequent small doses of brandy during the latter part of the pregnancy. In the evening she had regular delirium tremens. No milk in the breasts. Tongue has whitish fur and is red along the middle line. A large opiate did not procure sleep. On the ninth day the vivid delusions disappeared, she was rational [but an excited, unnatural manner

<sup>1</sup> *Loc. cit.*, p. 693.

continued for some days longer]. Temp., 101°; pulse, 108; perspirations. Peasoup diarrhoea continues. After this I learned that she slowly recovered health and strength.

The subject of the influence of chronic alcoholism on the quantity and quality of the progeny of those affected has attracted a great amount of attention; and, while there is unanimity as to the great extent and great potency of the injurious influence, it must be admitted that the subject, on its scientific side, requires much further observation and inquiry. Much difficulty arises from the imperfection of evidence, from the intervention of two parties in each case, and from the uncertainty as to the amount of influence of the male or of the female party, or of both. As an example of the evil of one-sided study is the restriction of my own observations almost exclusively to the female party to the conceptions. Further, before this subject can be satisfactorily treated, much more must be made out as to the relations, no doubt very close, of sterility, excessive production, abortion, premature labour, production of unhealthy children, and survival of children. On these matters I have written at some length in my *Gulstonian Lectures on Sterility in Woman*, and to them I beg to refer the student, wishing to avoid here much recapitulation. Only I may insist on the very close relations referred to, in order to strengthen the general demonstration by the good argument, that evidence in support of one of these results of chronic alcoholism is also evidence in support of the others.

Sterility, whether absolute or relative, is often a result of habitual drunkenness, and I have already cited the evidence of Lippich on this point. In practice cases are not rare where fertility ensues on change of habit to that of total abstinence from spirituous liquors; and again cases are not rare where fertility is arrested by soaking, and returns on the bad habit being given up. You rarely (says J. P. Frank) see a woman who drinks much have many children; or, if she has, they generally die soon.

Many authors attest the influence of chronic alcoholism in inducing abortion, miscarriage, or premature labour. In his dissertation on the drunkenness of women, Michael Alberti,<sup>1</sup> after quoting Riedlinus in his support, says that innumerable instances establish the truth that a woman who is addicted to drunkenness often aborts or brings into the world premature children and children which have the most terrible diseases. To the same effect write J. P. Frank,<sup>2</sup> and also Joseph Frank as quoted by Huss.<sup>3</sup>

Mrs S. was married at 19, and rapidly had one abortion and five children, of which the last was born when she was 24 years of

<sup>1</sup> See Frank. *System der Polizey*, i. Band, S. 556.

<sup>2</sup> *System einer vollständigen medicinischen Polizey*. Zweite Auflage, 1784, S. 555.

<sup>3</sup> *Chronische Alkoholskrankheit*, 1852, p. 331.



age. About this time she acquired drunken habits and became very ill, the liver being enlarged, with ascites, and latterly amenorrhœa. In the early part of this drinking period she had three abortions about the third month. After about seven years of the bad habit she, in order to save her life, became a total abstainer, and her health was completely restored. She soon became pregnant, and then came under my care. She bore her child naturally, and made a good recovery. This child was born eight years after the last living child, and when she was 32 years of age. About two years after the birth of this child she again fell into bad habits, and could not be restrained. She became once more pregnant, and had albuminuria, uræmic eclampsia, and miscarriage about the sixth month. Soon after she died of renal disease.

Mrs T., now 32 years of age, was married at 19, and had five children, of which the last was born in her 27th year. At this time she became much addicted to drinking; kept her bed very much; had great loss of power in the lower limbs; and her liver became considerably enlarged. The bad habit had continued for nearly six years, when I was called to see her, and during these years she had had six early miscarriages. I recommended, and succeeded in securing, total abstinence from alcoholic drinks. She soon regained her health, and in less than a year bore a living child, which was soon followed by another. Since its birth I have not heard of her.

Mrs Y., a soaker since her marriage in early life, was sterile, and is sterile after eighteen years of married life. To this statement has to be added the occurrence of a miscarriage about the fifth month. This, the only conception, occurred at the close of a long yachting expedition of several months, taken with a view to ensuring complete abstinence from spirituous drinks.

The baneful influence of inebriety in the parents does by no means end with the birth of the offspring. That of the mother is, in an especial manner, continued by suckling; but the exact mode of conveyance by the milk is not established. Duquesnel,<sup>1</sup> indeed, cites Charpentier and others as having observed nurses who took alcohol passing a quantity of it in their milk sufficient to have a marked influence on the child; but he gives no evidence in support of the statement, nor reference to it. On the other hand, Felix Hoppe-Seyler<sup>2</sup> quotes Béchamp,<sup>3</sup> as showing that quite fresh milk of women and of asses contains a little alcohol; and he adds,<sup>4</sup> that he is not aware of any chemical demonstration of the passage of this substance from the nurse to the suckling, mentioning at the same

<sup>1</sup> *Nouveau dict. de méd. et de chirurgie prat.*, tome xx. p. 76.

<sup>2</sup> *Physiologische Chemie*. Berlin, 1881. S. 733.

<sup>3</sup> *Comptes rendus*, tome lxxvi. p. 654.

<sup>4</sup> *Ibid.*, S. 758.

time, and evidently incredulously, the alleged intoxicating influence on the latter.

The belief is very ancient that inebriety exerts great injurious influence on population. The Carthaginians and Romans are said <sup>1</sup> to have interdicted newly-married women from the use of wine, lest the foetus should get harm. Hippocrates is said to <sup>2</sup> have recognised the belief. Riedlinus, as already referred to, says that if drunken women conceive they either bring forth before the full time or produce feeble children that scarcely live a few days, and he knew a woman who was not very often intoxicated who had seven children, of whom not one survived. Roesch <sup>3</sup> says that children procreated in drunkenness have almost always a seed germ of disease; and among diseases to which they are liable he mentions convulsions, hydrocephalus, phthisis, atrophy, scrofula, and rickets. Huss <sup>4</sup> says it is a quite common and fully established observation, that children, born of parents given to drink, are weak and morbid, and often die in early life. Howe <sup>5</sup> says he has found that the children of parents addicted to intemperance are often scrofulous. "There is one effect of alcohol on the child," says Kirk, <sup>6</sup> "which I have observed so often that I regard it as altogether undeniable. . . . I have noticed that the children of notoriously drunken mothers were often born in a remarkably emaciated state, and were sometimes diminutive in every sense. Such children might be tolerably healthy and quite free from any cachectic appearance; but the striking thing about them was, that not only were they small at birth, but they did not grow, and at five years of age might look like children of two or three. I have seen," he adds, "numerous instances of this sort, and the amount of race degeneration which takes place in this way is probably considerable."

Vulcan is regarded as owing his deformity to inebriety in one of his parents; and there are several authors who ascribe deformity of ordinary mortals to the same source, and Kirk goes the length of saying that few will be disposed to deny this special injurious influence. On this subject Lancereaux <sup>7</sup> gives a fuller statement than any other author I have met with. "The material disorders," says he, "which are the result of alcoholic heredity consist of inflammatory lesions of the nervous centres which vary according to the time of life when they are produced. It is therefore important to study them in the foetus, the infant, and the adult. During the embryonic period, these disorders, leading to modifications of the elements destined at a later period to constitute one of the important parts

<sup>1</sup> J. P. Frank. *System einer vollst. med. Polizey*, ii. Aufl., 1784 S. 556.

<sup>2</sup> *Dict. Encycl. des sc. méd.*, tome ii. p. 668.

<sup>3</sup> *Ann. d'hygiène publique*, etc., tome xx., 1838, p. 84.

<sup>4</sup> *Chronische Alkoholskrankheit*, S. 331.

<sup>5</sup> *On the Causes of Idiocy*.

<sup>6</sup> *Glasgow Medical Journal*, 1885, p. 409.

<sup>7</sup> *De l'alcoolisme*. Paris, 1878, p. 29.

of the cerebro-spinal centre, oppose the development of this part, and may come to be the point of departure of malformation of the encephalon, and in particular of that which is known as anencephali. Dr Demeaux, and some other observers, have in fact reported examples of this kind of malformation which they believed to be justly attributed to alcoholic excess in the parents. When they supervene in the fœtus or in youth, the hereditary disorders of alcoholism are recognised by lesions which resist the complete development of organs. It is fair so to regard certain partial atrophies, most frequently unilateral, of the cerebral hemispheres, described by Breschet under the name of agénésies. These atrophies by arrest of development, present the characters of sclerosis; they are generally accompanied by deformity of the head, more or less marked, according to the state of the bones of the cranium, by epilepsy, and by hemiplegia, with atrophy of the skeleton of the paralyzed limbs. At other times both hemispheres may be affected, the head is very little developed, the cranium is small; there is microcephaly and a general very imperfect development. In these circumstances, the degenerated being, the product of a drinker, walks with difficulty, he is sometimes paraplegic, and often an idiot or an imbecile. Try to trace back the antecedents of infants or of adults which present these pathological disorders, and you will find that, in many cases, the parents have fallen into excess in alcoholic drinks, and that these drinks have played a principal part in the genesis of the accidents with which the infants have been struck. . . . Excess in alcoholic drinks may, therefore, be counted among the causes of infantile paralysis; but epilepsy especially appears to us to be a frequent result of the inebriety of parents; and that which leads us to accept this view is the peculiar conformation of epileptics who have in their families alcoholic antecedents. In reality these individuals are ordinarily small, sometimes large and thin, almost always incompletely developed, they present in general the attributes of the state known as infantilism. The cranium and the upper part of the face are symmetrical, and sometimes there is a hemiatrophy of the whole body. The head is small, and the expression of the face strange and sad."

That these observations of deformity and imperfect development believed to arise from chronic alcoholism are important, no one can doubt, whatever may be the amount and force of the evidence of their causation. They are mostly concentrated around the nervous system, and this circumstance adds to the strength of the evidence; for observations of functional disease of the cerebro-spinal system are the most prominent in the treatises on alcoholism, and the evidence of its dependence on this chronic intoxication is fuller and better.

Speaking of this evil influence of inebriety, Devay<sup>1</sup> remarks, that "in ancient times it was a dogma received and unanimously

<sup>1</sup> *Mariages consanguins*, 1862, p. 9.



propagated by physicians and philosophers. 'Young man,' said Diogenes to a stupid child, 'thy father was very drunk when thy mother conceived thee.' When the Greeks represented the deformed Vulcan as born of Jupiter inebriated with nectar, they expressed the organic inferiority of children conceived in the delirium of drunkenness. Observations collected by Hufeland, Burdach, Edouard Seguin, Prosper Lucas, Roesch, etc., have demonstrated that children procreated during the drunkenness of the parents may be born with a general obtuseness of the senses, and are affected with idiocy."

Michæl Alberti, already quoted, says that children born of drunken women have the most terrible nervous diseases. Roesch cites Mason Cox as having observed an inclination to insanity and idiocy, and Friedrich as holding that the majority of children begotten in drunkenness become idiots. Howe,<sup>1</sup> giving statistics of the causes of idiocy, writes:—"By inspection of the tables, it will be seen that out of 359 idiots, the condition of whose progenitors was ascertained, 99 were the children of drunkards."

Demeaux<sup>2</sup> writes that "peculiar circumstances have given him opportunity to observe in his practice a goodly number of epileptics. Among 36 patients submitted to his observation in twelve years, and of which he was able to make out the history, he satisfied himself that five of them had been conceived, the father being in a state of drunkenness. He had observed in the same family two infants affected with congenital paraplegia, and was assured, by the precise statements of the mother, that conception had taken place during drunkenness. In a young man, 17 years of age, the subject of mental aberration, and in an infant idiot, five years of age, he again found the same cause." Vousgier<sup>3</sup> is said to have made two new observations supporting those of Demeaux. Ruez is cited by Devay<sup>4</sup> as having shown, from statistics of the causes of insanity in the ancient kingdom of Westphalia, that idiocy was frequent in the populations of working miners; these being separated from their wives during the entire week, and having sexual connexion only on days of rest, when alcoholic libations are partaken of by both sexes. Dr Morel is also cited as having remarked the same thing in other countries, in France, where drunkenness was equally common in the two sexes.

"Dr Elam," says Huth,<sup>5</sup> "states that on the removal of the spirit duty in Norway, insanity increased 50 per cent. and congenital idiocy by 150 per cent. Dr Lannurien, of the establishment for mental diseases at Morlaix, in Bretagne, says,—"I do not hesitate to attribute the greater number of cases of idiocy in this

<sup>1</sup> *On the Causes of Idiocy*, Edinburgh, 1858, p. 28.

<sup>2</sup> *Comptes rendus de l'acad. des sciences*, tome li., 1860, p. 576.

<sup>3</sup> *Dict. Encycl. des sc. méd.*, tome ii. p. 668.

<sup>4</sup> *Mariages consanguins*, 1862, p. 9.

<sup>5</sup> *Marriage of near Kin*, 1875, p. 219.

establishment to that cause." "Dr Delasiauve," adds Huth, "instances the village of Carême, whose riches were its vineyards, the inhabitants of which place were forced to be a little more sober in consequence of ten years' vine disease. This," he says, "had a sensible effect in diminishing the cases of idioey."

"My attention," writes Lancereaux,<sup>1</sup> "being drawn to the importance of facts of this kind, I some years ago asked one of my students, M. Martin, then intern of Dr Delasiauve, to be so good as observe in this point of view the numerous epileptics which constituted the service of the intelligent physician of Salpêtrière, and here are the principal results of the researches which M. Martin made. . . . Of 83 children or adults examined in this respect, 60 times the parents were found to be alcoholic; 23 times drunkenness was not made out. In the 60 families to which belonged the individuals of the first category, the number of children was 301, and of these 132 were dead at the time of the inquiry. Of the 169 surviving, 60 were epileptics; 48 had had convulsions in their youth, and 64 only could be considered as healthy. The 23 individuals of the second category belonged to 23 families, of which the total number of descendants were 106, of whom 27 were dead. Now, among the 79 surviving, 23 were epileptics, 10 had had convulsions in youth, 46 appeared to be in good health. In addition, a great number of these children were paralytic and deformed."

After all that has been produced, the want of more cogent evidence is still felt; and, as we have been dealing much with authority, it is worth while mentioning that Sir Arthur Mitchell<sup>2</sup> recognises its incompleteness. Dr Langdon Down<sup>3</sup> also, treating of the subject, remarks that it is "very difficult to get a reliable statement with regard to the influence of alcoholic intemperance." If Mitchell and Down justly appreciate the state of this evidence as to immediate descendants of drunkards, what shall we say of the more adventurous assertions of Devay and Howe as to the weakness in body and mind of ulterior generations? "Darwin," truly says Huss,<sup>4</sup> "goes too far when he affirms that all those diseases which arise from the abuse of spirituous drinks are continued by inheritance to the third generation, and are aggravated in each generation up till the third, with which such a family generally becomes extinct."

<sup>1</sup> *De l'alcoolisme*, Paris, 1878, p. 29.

<sup>2</sup> *Private letter*.

<sup>3</sup> *Lancet*, Jan. 22, 1887, p. 163.

<sup>4</sup> *Chronische Alkoholskrankheit*, 1852, S. 331.





